Use Case Descriptions

* HDB.001: Register Account
* HDB.002: Login
* HDB.003: Add Apartment Listing To Watchlist
* HDB.004: Search Apartment Listing
* HDB.005: View Apartment Listing
* HDB.006: Search Realtor
* HDB.007: Compare Apartment Listings
* HDB.008: Rate Realtor
* HDB.009: Post Apartment Listing
* HDB.010: Update Apartment Listing
* HDB.011: Delete Apartment Listing
* HDB.012: View Watchlist
* HDB.013: Price Change Notification

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| Use Case ID: | HDB.001 | | |
| Use Case Name: | Register Account | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| --- | --- |
| Actor: | Guest |
| Description: | Create account |
| Preconditions: | 1. User has not logged in |
| Postconditions: | 1.User registers a user account |
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| Priority: | Essential |
| Frequency of Use: | Low |
| Flow of Events: | 1. User will enter 'sign-up' page. 2. User will select to sign up for a Realtor account. 3. System will display sign-up form where he must fill in his: 3.1 NRIC number 3.2 Full name 3.3 Contact number 3.3 Username 3.4 Password 3.5 Email 4. System will send a validation email with a unique link to the user's email address. 5. User will click the link and verifies his account. 6. System will register user’s Realtor account and log in user’s account |
| Alternative Flows: | 1. User will enter 'sign-up' page. 2. User will select to sign up for a Normal User account. 3. System will show a sign-up form where he must fill in his: 3.1 Username 3.2 Password 3.3 Email Alternatively, user can sign up as Normal User through Facebook Login, where he must allow Facebook for the system to access his: 4.1.1 Public name 4.1.2 Email 4. System will send a validation email with a unique link to the user's email address. 5. User will click the link and verifies his account. 6. System will register user’s Normal User account and log in user’s account |
| Exceptions: | **HDB.EXC\_EMAIL** – Email service has downtime.  System response – Prompt user to request for resending the validation email again. |
| Includes: |  |
| Special Requirements: |  |
| Assumptions: | User always receive verification email. |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Ho Song Yan | 25/02/2016 | Modified the flow of event for Facebook login and adding exception of failed email delivery | 1.2 |
| Ho Song Yan | 03/03/2016 | Modified the flow of event and alternative flow | 1.3 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.4 |

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| Use Case ID: | HDB.002 | | |
| Use Case Name: | Login | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 29/03/2016 |

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| Actor: | Normal User |
| Description: | Login Normal User or Realtor Account |
| Preconditions: | 1. User has a valid Normal User/Realtor Account |
| Postconditions: | 1. User is logged in |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. User will enter 'Login’ page. 2. User will enter email and password 3. User will select Login 4. User is now logged in with his account |
| Alternative Flows: | 1. User will enter 'Login’ page. 2. User will select Facebook login 3. Facebook API will validate user’s Facebook credentials 4. User is now logged in with his account |
| Exceptions: | User enter wrong email/password combination. An error message will prompt user to try |
| Includes: | Search Apartment Listing |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| JIANG YICHU | 02/03/2016 | Modified the template | 1.2 |
| Sing Swee Yang | 29/03/2016 | Usage of active voice | 1.3 |
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| Use Case ID: | HDB.003 | | |
| Use Case Name: | Add Apartment Listing To Watchlist | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Add apartment to Watchlist |
| Preconditions: | 1. User has been suggested at least one listing  2. User is logged in |
| Postconditions: | 1. The listings selected are added into watchlist |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. User will select one or more suggest apartment listings 2. User will select "Add to Watchlist". 3. System will add selected Apartments to user’s watchlist |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | Search Apartment Listing |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| JIANG YICHU | 02/03/2016 | Modified the template | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |
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| Use Case ID: | HDB.004 | | |
| Use Case Name: | Search Apartment Listing | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Search Apartment Listings with a search term |
| Preconditions: | 1.User has relevant search term for an apartment |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | High |
| Flow of Events: | 1. User will enter search term into the search bar and select "Search Apartment" 2. App suggests apartments based on user input sorted according to relevance |
| Alternative Flows: |  |
| Exceptions: | **HDB.EXC\_NO\_RESULT\_LISTING** – System does not have listings at the area. System response - System must display an error message and prompt user to change the search criteria. |
| Includes: |  |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Ho Song Yan | 25/02/2016 | Modified the flow of events of search criteria. | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |
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| Use Case ID: | HDB.005 | | |
| Use Case Name: | View Apartment Listing | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | View the details of a specific apartment |
| Preconditions: |  |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | High |
| Flow of Events: | 1. User will select an apartment listing to view 2. System will display apartment listing page with the following information:  * Address and unit number * Description * Number of rooms * Price * Rating * Number of people watching * Pictures uploaded by Realtor * Realtor Information |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: |  |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |
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| Use Case ID: | HDB.006 | | |
| Use Case Name: | Search Realtor | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Search Realtor with a search term |
| Preconditions: | 1.User has relevant search term for an realtor |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | High |
| Flow of Events: | 1. User will enter search term into the search bar and select "Search Realtor"   1. 2. System will suggest realtors based on user input sorted according to relevance |
| Alternative Flows: |  |
| Exceptions: | **HDB.EXC\_NO\_RESULT\_REALTOR** – System does not have realtor profile that match the search term. System response - System must display an error message and prompt user to enter another search term. |
| Includes: |  |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Ho Song Yan | 25/02/2016 | Modified exception | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |

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| Use Case ID: | HDB.007 | | |
| Use Case Name: | Compare Apartment Listings | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Compare Apartment Listing with select criteria |
| Preconditions: | 1.User has at least one apartment added to watchlist |
| Postconditions: |  |
| Priority: | Conditional |
| Frequency of Use: | Medium |
| Flow of Events: | 1. 1. User will select 1 to 3 apartment listings from watchlist to compare 2. 2. System will display comparison table of the apartment listings selected (default criteria are price, room type and unit number) 3. 3. User will select one or more optional criteria to add ( optional criteria are mrt station, bus station, school, shopping mall, lease commencement date) 4. 4. System will display new comparison table with selected optional critieria |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.2 |

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| Use Case ID: | HDB.008 | | |
| Use Case Name: | Rate Realtor | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Rate realtor with an approval rating(positive/negative) and comment |
| Preconditions: | 1.User is logged in to a normal user account |
| Postconditions: |  |
| Priority: | Conditional |
| Frequency of Use: | Medium |
| Flow of Events: | 1. User will visit realtor’s profile page and select option to rate realtor 2. System will display a rating form for user to fill in 3. User will enter a text comment of at least 100 characters and select an approval rating (postive/negative) 4. User will submit review |
| Alternative Flows: |  |
| Exceptions: | **Incomplete Review** User entered less than 100 characters in textbox OR user did not select approval rating. The system must display an error message and prompt user to complete incomplete field |
| Includes: | View Realtor Profile, Search Realtor |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |

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| Use Case ID: | HDB.009 | | |
| Use Case Name: | Post Apartment Listing | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 20/02/2016 |

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| Actor: | Realtor |
| Description: | Post a apartment listing as realtor |
| Preconditions: | 1.Realtor is logged in to a realtor account 2.Realtor has an apartment to list with a valid address and unit number |
| Postconditions: | 1. New apartment listing is created and stored in database.  2. The listing will be displayed when it meets users’ search condition. |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. Realtor will select "POST APARTMENT LISTING" 2. System will display an apartment listing form where Realtor must enter the following:  2.1 Address of Apartment  2.2 Postal Code  2.3 Unit Number of Apartment  2.4 Asking Price of Apartment   2.5 Room type of Apartment  2.6 Description of Apartment not exceeding 500 words  3. Realtor will enter the information needed in the form and submit the form  3. System will check that address, postal code and unit number are valid  4. System will display a preview of apartment listing  5. Realtors will confirm that detail of apartment in preview is correct  6. System will publish apartment listing under realtor’s profile |
| Alternative Flows: |  |
| Exceptions: | **Incomplete Form** Realtor did not fill in all the required fields. The system must display an error message and prompt user to complete incomplete field **Invalid Postal Code/Address** Realtor entered invalid postal code/address. The system must display an error message and prompt realtor to enter a different postal code/ address |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| JIANG YICHU | 02/03/2016 | Requirements changed | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |

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| Use Case ID: | HDB.010 | | |
| Use Case Name: | Update Apartment Listing | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Realtor |
| Description: | Update a posted apartment listing as realtor |
| Preconditions: | 1.Realtor is logged in to a realtor account 2.Realtor has at least one apartment listing posted |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. System will display list of apartment that realtor has posted  2. Realtor will selects apartment to be updated 3.Realtor will complete a fill-in form where he can update the:  3.1 Address of Apartment  3.2 Postal Code  3.3 Unit Number of Apartment  3.4 Asking Price of Apartment   3.5 Room type of Apartment  3.6 Description of Apartment not exceeding 500 words 4. System will check that updated address, postal code and unit number are valid  5. System will display a preview of new apartment listing  6. Realtor will confirm that detail of apartment is correct  7. System will publish updated apartment listing under realtor profile |
| Alternative Flows: |  |
| Exceptions: | **Incomplete Form** Realtor did not fill in all the required fields. The system must display an error message and prompt user to complete incomplete field **Invalid Postal Code/Address** Realtor entered invalid postal code/address. The system must display an error message and prompt realtor to enter a different postal code/ address |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.2 |

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| Use Case ID: | HDB.011 | | |
| Use Case Name: | Delete Apartment Listing | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Realtor |
| Description: | Delete a posted apartment listing as realtor |
| Preconditions: | 1.Realtor is logged in to a realtor account 2.Realtor has at least one apartment listing posted |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. System will display list of apartment that realtor has posted  2. Realtor selects apartments to be deleted 3. System displays confirmation message asking realtor to confirm that he wants to delete selected apartment listing  4. Realtor will confirm deletion of apartment listing  5. System will deleted selected apartment listings |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.2 |
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| Use Case ID: | HDB.012 | | |
| Use Case Name: | View Watchlist | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| --- | --- |
| Actor: | Normal User |
| Description: | View Watchlist |
| Preconditions: | 1. User is logged in |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. User will enter ‘Watchlist’ page 2. System will display user’s watchlist with all the apartment listings that user have previously added to watchlist |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Fong Zi Hao | 02/03/2016 | Modified the template | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |
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| --- | --- | --- | --- |
| Use Case ID: | HDB.013 | | |
| Use Case Name: | Price Change Notification | | |
| Created By: | Sing Swee Yang | Last Updated By: | Sing Swee Yang |
| Date Created: | 20/02/2016 | Date Last Updated: | 10/03/2016 |

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| Actor: | Normal User |
| Description: | Notifies Normal User of a price change in an apartment listing in watchlist |
| Preconditions: | 1. User is logged in |
| Postconditions: |  |
| Priority: | Essential |
| Frequency of Use: | Medium |
| Flow of Events: | 1. System will update the price of the apartment listing in watchlist 2. System will create notification in the notification icon of Normal User 3. User will click on the notification 4. User will enter the notification page where date of price change and previous price will be shown 5. Notification will be marked as read |
| Alternative Flows: |  |
| Exceptions: |  |
| Includes: | Login |
| Special Requirements: |  |
| Assumptions: |  |
| Notes and Issues: |  |

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| **Name** | **Date** | **Reason For Changes** | **Version** |
| Sing Swee Yang | 20/02/2016 | Created | 1.1 |
| Fong Zi Hao | 02/03/2016 | Modified the template | 1.2 |
| Sing Swee Yang | 10/03/2016 | Usage of active voice | 1.3 |
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